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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/605,277	09/19/2003	Ted W. Haan	SIE04 P-109A	2276

28101 7590 11/15/2004

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EXAMINER

CRAWFORD, GENE O

ART UNIT	PAPER NUMBER
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3651

DATE MAILED: 11/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	10/605,277	HAAN ET AL.	
	Examiner	Art Unit	
	Gene O. Crawford	3651	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-39 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-39 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |  |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>9/19/2003</u> . | 6) <input type="checkbox"/> Other: ____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 4-11 and 36 are rejected under 35 U.S.C. 102(b) as being anticipated by Woltjer et al.

The accumulation conveyor system includes all the claimed features and in particular includes: **(claims 1, 36)** an accumulation assembly 16 adapted to accumulate the plurality of articles into a slug of articles; a transport line 18 including a plurality of tandem transport conveyors downstream of the accumulation assembly 16; a control for the accumulation assembly 16 and the transport line 18 the control transporting slugs from the accumulation assembly 16 and monitoring slugs at the transport conveyors and accumulating slugs with the transport conveyors via merge 14 as broadly claimed (column 3, lines 40-56); **(claim 4)** the accumulation assembly accumulates articles without gaps between the articles (column 3, lines 30-35); **(claim 5)** the control accumulates slugs at the transport line from downstream transport conveyors to upstream transport conveyors as broadly claimed; **(claim 6)** the transport conveyors 12, 16, 18 accumulate slugs at a first speed and discharge accumulated slugs at a second speed that is higher than the first speed (column 3, lines 35-39); **(claim 7)** the accumulation assembly including a plurality of conveying sections defining

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tandem accumulation zones and wherein the control operates the conveying sections to accumulate articles in the zones and form a slug by reducing gaps between articles in sequence from upstream gaps to downstream gaps (column 2, lines 25-30; **(claim 8)** wherein the accumulation assembly includes a slug forming section 16 and slug combining section 14; **(claim 9)** the slug accumulation section 16 including a plurality of conveying sections defining tandem accumulation zones wherein the control operates the conveying sections to accumulate articles in the zones and form a slug by reducing gaps between the articles in sequence from upstream gaps to downstream gaps (column 2, lines 25-30); **(claim 10)** including at least two accumulation assemblies and at least two transport lines in between merge 14 and accumulation assemblies 16; and **(claim 11)** a downstream process includes an article sortation process.

3. Claims 12-14, 17, 20-22, 27-30, 33 and 37-39 are rejected under 35 U.S.C. 102(b) as being anticipated by Taylor.

The accumulation conveyor system disclosed by Taylor includes all the claimed features and in particular includes: **(claims 12, 20, 27, 37-39)** a conveying surface divided into a plurality of conveying sections, the conveying sections defining tandem accumulation zones, operating the conveying sections to accumulate articles in the zones, the control operating the conveying sections with articles accumulated in the zones to form a slug by reducing gaps between articles through the use of sensors 20 (column 6, lines 1-7); **(claims 13, 21)** the control starts and stops individual ones of the conveying sections no more than once during an accumulation cycle (column 6, line 8-30); **(claims 14, 22)** the control forms the slug concurrently with discharging articles

from the conveying surface as broadly claimed; **(claims 17, 33)** the accumulation assembly forms a slug by reducing gaps in sequence from upstream gaps to downstream gaps; **(claim 28, 29)** the control operating the conveying sections to discharge articles by initiating operation of a conveying section when an associated article sensor senses a leading portion of an article upstream of that conveying section (column 6, lines 8-56); and **(claim 30)** wherein the control module discharges articles in the discharge mode with gaps between the articles (figures 12-17).

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 15, 16, 18, 19, 23-26, 31, 32, 34 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Taylor in view of Woljter et al.

With regard to claims 15, 16, 18, 19, 23-26, 31, 32, 34 and 35, the accumulation conveyor system and method thereof includes all the claimed features but does not disclose a slug combining section downstream of the accumulation assembly, a sortation process or a plurality of tandem conveyors for receiving and combining slugs downstream of the accumulation assembly. However, Woljter et al. discloses the broad teaching of providing a slug combining section 14, a sortation process 20 and a plurality of tandem conveyors downstream of an accumulating assembly 16. It would have

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obvious to one of ordinary skill in the art to provide the conveyor system of Taylor include a sortation process, accumulation assembly and a plurality of tandem conveyors for receiving and combining slugs of articles downstream of accumulation assemblies as taught by Woltjer et al.

6. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Woltjer et al. in view of Taylor.

With regard to claim 3, Woltjer et al. includes all the claimed features but does not disclose the accumulation assembly accumulates articles with gaps between the articles. However, Taylor discloses the broad teaching of providing an accumulation assembly that accumulates articles with gaps in between. It would have been obvious to one of ordinary skill in the art to provide the conveyor system of Woltjer et al. include an accumulation assembly that accumulates articles with gaps between the articles such requiring the mere choice of an art recognized configuration for forming slugs on an accumulation assembly as taught by Taylor.

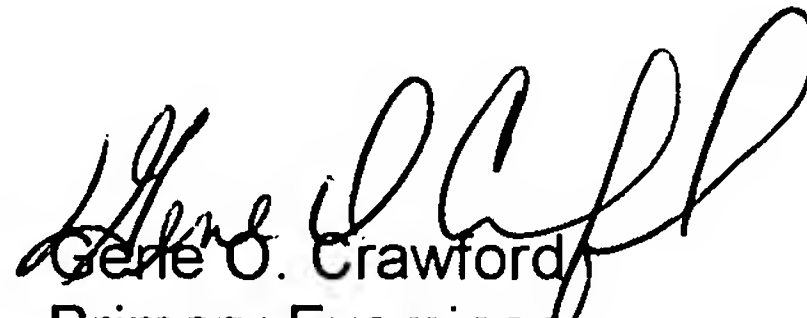
### ***Conclusion***

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following are cited to show the art with respect to accumulation conveyor systems having control systems for controlling accumulation of articles: Pfeiffer ('463), Onoyama et al., and Pfeiffer ('683).

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gene O. Crawford whose telephone number is 703/305-9733. The examiner can normally be reached on Monday thru Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher Ellis can be reached on 703/308-1113. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Gene O. Crawford  
Primary Examiner  
Art Unit 3651

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